

REMARKS/ARGUMENTS

Claims 1 - 9 are pending.

Claims 2, 4, and 6-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,875,349, Cornaby et al.

It is noted with appreciation, however, that claims 1, 3, 5, and 8-9 have been allowed.

The present invention is directed to an external storage system having a disk drive and a cache memory. Based on user defined information and upon operating information provided to the storage system, data can be stored in the cache memory or removed from the cache memory. This aspect of the present invention is discussed on page 17, lines 13 - 19. The data in the cache memory, includes data that is read from the disk drive and data that is to be written to the disk drive.

Claim 2 had been amended in a response mailed April 22, 2004, and is re-presented for consideration. Claim 2 recites an external storage system having at least a disk drive and a cache memory. The cache memory “[stores] data that is read from the disk drive and [stores] data to be written to the disk drive.” Such data is collectively referred to as user data in the claim. Claim 2 further recites that the user data is “stored in the cache memory or removed from the cache memory [is] based on user defined information and upon operating information provided to the external storage subsystem.”

Cornaby et al. describe in column 4, lines 7 - 15:

“Hard disk drive 19 includes a RAM memory buffer 34 and the initialization process for hard disk drive 19 includes loading information such as a defect list of all of the defective memory locations on the hard disk drive from the memory storage of hard disk drive 19 into RAM memory buffer 34. This information is available for use by disk drive firmware 21 throughout the operation of disk drive 19.”
(underlining added for highlighting)

The RAM memory buffer 34 of Cornaby et al. stores “defect list” information. It is earnestly submitted that “defect information” does not constitute data that is read from the disk drive and ... data to be written to the disk drive, as recited in claim 2. It is respectfully submitted,

therefore, that RAM memory buffer 34 does not store data that is read from the disk drive and ... data to be written to the disk drive, and that Cornaby et al. does not anticipate this aspect of the present invention.

Cornaby et al. describe in column 1, lines 13 - 15 that:

"the present invention relates to a loadable device driver which is associated with the hard disk drive and which is loaded into the system RAM during the start-up of the computer system. The loadable device driver controls the operation of the hard disk drive in a way which does not require the system BIOS or any other protocol translation mechanism other than the loadable device driver to be provided between the hard disk drive and the operating system in order for the operating system to communicate with the hard disk drive."

(underlining added for highlighting)

The "system RAM" is loaded with a "device driver." It is earnestly submitted that one of ordinary skill in the relevant art will understand that generally a device driver is used by an operating system to access a device. A device driver therefore would not be understood as constituting data that is read from the disk drive and ... data to be written to the disk drive, as recited in claim 2.

Cornaby et al. was also cited at column 6, lines 56 - 59. However, the cited text simply refers to the drawings disclosed by Cornaby et al. A review of the drawings described by Cornaby et al. does not reveal any teaching of the present invention as recited in amended claim 2. Cornaby et al. disclose in their Summary of the Invention at column 6, lines 18 - 47, a technique for identifying defective memory locations on the hard disk drive, and storing defect information in the system RAM and within the hard disk drive. Cornaby et al. do not disclose user data (cached read data and cached write data) that is stored to the cache memory or removed from the cache memory based on user defined information and upon operating information provided to the external storage subsystem.

For at least any of the foregoing reasons, claim 2 as amended is earnestly believed to overcome the Section 102 rejection. The dependent claims 4 and 6 - 7 are believed to overcome the Section 102 rejection for at least any one of the foregoing reasons.

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PATENT

CONCLUSION

In view of the foregoing, all claims now pending in this Application are believed to be in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


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